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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,384	10/10/2000	Lin He	SP00-291	4601

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CORNING INCORPORATED  
SP-TI-3-1  
CORNING, NY 14831

EXAMINER

JOHNSON, EDWARD M

ART UNIT PAPER NUMBER

1754

DATE MAILED: 01/16/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/685,384

Applicant(s)

HE ET AL.

Examiner

Edward M. Johnson

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 31-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29 and 31-34 is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-28 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The recitation further specifying  $TiO_x$ , "wherein x is less than 2" appears to be new matter, as no support was found in the original disclosure for such a recitation. Applicant is invited to point out where support for the recitation may be found in the original disclosure, if Applicant believes such support in fact exists.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the

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differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dettling et al. 5,128,306.

Regarding claim 1, Dettling '306 discloses a catalyst comprising a support comprising ceria and lanthana (see abstract and Example 1) wherein the support is impregnated with platinum (see column 10, lines 50-54), and honeycomb-type substrates (see column 8, line 10).

Dettling fails to specifically disclose titanium, zinc, and iron oxides as support.

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use titanium, zinc, or iron oxides in the support of Dettling's catalyst because Dettling discloses functional prior art carriers containing iron oxide (see column 3, lines 34-37), alumina support containing titania as an expedient (see column 2, lines 37-40), and dispersing iron or zinc on the ceria or alumina support particles or both (see column 7, lines 54-60).

Regarding claims 2 and 5, Dettling '306 discloses 0.1g/cubic inch nickel (see column 13, lines 45-47; some claimed ranges include zero).

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Regarding claims 3-4, Dettling '306 discloses 1% Pt and Pd (see column 10, line 57).

Regarding claims 6-28, Dettling '306 discloses 3% lanthana and baria (see column 15, lines 55-56 and column 17, lines 13-14; some claimed ranges include zero).

5. Claims 1-28 are rejected under 35 U.S.C. 103(a) as unpatentable over Nguyen et al. 5,895,636.

Regarding claim 1, Nguyen '636 discloses a catalytic composition comprising a support of alumina and lanthanum oxide (see column 5, lines 38-45 and column 6, lines 1-8), impregnated with platinum (see column 6, lines 15-18).

Nguyen fails to specifically disclose titanium or chromium oxides as support.

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use titanium or chromium oxide as support in the catalyst of Nguyen because Nguyen discloses functional catalysts comprising chromium oxide supported platinum (see column 1, lines 43-45) and noble metals dispersed on titania (see column 2, lines 4-5).

Regarding claims 2 and 5, Nguyen '636 discloses 5% barium as promoter (see column 5, lines 38-39, 47, and 53-54).

Regarding claims 3-4, Nguyen '636 discloses 4% platinum and palladium (see column 5, lines 50-51).

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Regarding claims 6-28, Nguyen '636 discloses 5% lanthanum and barium oxides (see column 5, lines 38-39, 47, and 53-54).

***Allowable Subject Matter***

6. Claims 29 and 31-34 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: A catalyst comprising the compound of the formula of the instant claim 29 would not have been obvious to one of ordinary skill in the art at the time the invention was made.

***Response to Arguments***

7. Applicant's arguments filed 9/23/02 have been fully considered but they are not persuasive.

The rejections under 35 USC 112(2) have been withdrawn in view of Applicant's amendment.

It is argued that Applicants respectfully submit that Dettling teaches a catalyst comprising a zirconia and/or lanthana stabilized ceria support. This is not persuasive because it is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use titanium, zinc, or iron oxides in the support of Dettling's catalyst because Dettling discloses functional prior art carriers containing iron oxide (see column 3, lines 34-37), alumina support containing titania as an expedient (see column

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2, lines 37-40), and dispersing iron or zinc on the ceria or alumina support particles or both (see column 7, lines 54-60).

It is argued that Applicants respectfully submit that the Examiner has provided no suggest or motivation for modifying Dettling to obtain the claimed invention. This is not persuasive for the reasons above.

It is argued that Applicants respectfully submit that Nguyen teaches catalytic compositions comprising platinum and/or paladium. This is not persuasive because it is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use titanium or chromium oxide as support in the catalyst of Nguyen because Nguyen discloses functional catalysts comprising chromium oxide supported platinum (see column 1, lines 43-45) and noble metals dispersed on titania (see column 2, lines 4-5).

It is argued that Applicants respectfully submit that the Examiner has provided no suggestion or motivation for modifying Nguyen to obtain the claimed invention. This is not persuasive for the reasons above.

#### **Conclusion**

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is

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reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 703-305-0216. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

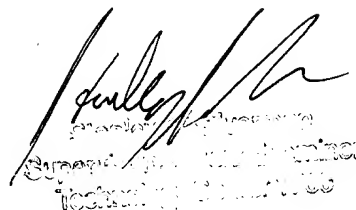


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

EMJ

January 15, 2003

A handwritten signature in cursive script, possibly reading "Gulley", is written over a rectangular stamp. The stamp contains several lines of small, illegible text, likely an official seal or administrative marking.